

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 31

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HANS E.P. KOHLER

Appeal No. 95-1901
Application 08/088,397¹

ON BRIEF

Before HAIRSTON, FLEMING and TORCZON, **Administrative Patent Judges**.

FLEMING, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of
claims 15 through 23. Claims 1 through 14 have been canceled.

¹Application for patent filed July 7, 1993. According to appellant, this application is a continuation of application 07/782,875, filed October 17, 1991, which is a continuation of 07/570,239, filed August 17, 1990.

The invention relates to a remote control system for the wireless transmission of operating commands using infrared light. In particular, Appellant discloses that the remote control system (transmitter 1 shown in Figure 1) transmits a biphasic signal TD to an apparatus (receiver 2 shown in Figure 1). Appellant discloses on page 7 of the specification that Figure 4B shows a time diagram of the biphasic signal TD which is generated by the encoding circuit 15 of transmitter 1 shown in Figure 1. Each biphasic bit comprises a first bit interval 40 in which the biphasic signal has the logic value of the corresponding bit message and a second bit interval 41 in which the biphasic signal has the inverted value. The first and second bit intervals combined constitute the bit period. The biphasic signal TD shown in Figure 4B comprises a biphasic state bit 42 of the value "1" in the form of a marking bit with bit period $2T$. On page 8 of the specification, Appellant discloses that the decoder 22 of the receiver 2 shown in Figure 2 distinguishes the marking bit from the other bits by detecting the second interval of the marking bit which is equal to the bit period T of the other bits.

The independent claim 15 is reproduced as follows:

15. A transmitter for use in a remote control system, the transmitter comprising:

generating means for generating a series of message bits constituting a message to be transmitted and a start word preceding the message bits;

an encoding circuit for converting the message bits into biphas bits having a predetermined bit period which comprises a first and a second bit interval and whose logic value is represented by a pulse during one of the first and second bit intervals; and

means for transmitting a biphas signal thus obtained to a receiver;

wherein the encoding circuit converts the start word into a biphas start bit having the pulse during the first interval, said start bit being distinguished from the other biphas bits in that the second bit interval of the biphas start bit is equal to the bit period of the other biphas bits.

The Examiner relies on the following references:

Aggers et al. (Aggers)	4,894,826	Jan. 16, 1990
Schwendeman et al. (Schwendeman)	4,914,649	Apr. 03, 1990
Milheiser	4,730,188	Mar. 08, 1988
Setoguchi et al. (Setoguchi)	4,748,643	May 31, 1988
Lichtenberger et al. (Lichtenberger)	4,310,922	Jan. 12, 1982

Claims 15, 16, 19, 20 and 22 stand rejected under 35 U.S.C. § 103 as being unpatentable over Milheiser in view of Setoguchi. Claims 15, 16, 19 and 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Milheiser and Setoguchi further in view of Aggers. Claims 17, 18 and 21 stand rejected under 35 U.S.C.

Appeal No. 95-1901
Application 08/088,397

§ 103 as being unpatentable over Milheiser, Setoguchi and Aggers further in view of Lichtenberger. Claim 23 stands rejected under 35 U.S.C. § 103 as being unpatentable over Milheiser, Setoguchi and Aggers further in view of Schwendeman.

Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the brief and answer for the respective details thereof.

OPINION

We will not sustain the rejection of claims 15 through 23 under 35 U.S.C. § 103.

The Examiner has failed to set forth a ***prima facie*** case. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the express teachings or suggestions found in the prior art, or by implications contained in such teachings or suggestions. ***In re Sernaker***, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). "Additionally, when determining obviousness, the claimed invention should be considered as a whole; there is no legally recognizable 'heart' of the invention." ***Para-Ordnance Mfg. v. SGS Importers Int'l, Inc.***, 73 F.3d 1085, 1087, 37 USPQ2d

Appeal No. 95-1901
Application 08/088,397

1237, 1239 (Fed. Cir. 1995), ***cert. denied***, 117 S.Ct. 80 (1996)
citing W. L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d
1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983), ***cert. denied***, 469
U.S. 851 (1984).

Appellants argue on pages 4 through 9 of the brief that neither Milheiser, Setoguchi, Aggers, Lichtenberger nor Schwendeman teaches or suggests a second bit interval of the biphase state bit which is equal to the bit period of the other biphase bits. We note that all of the independent claims, claims 15, 19 and 22, recite this limitation. In particular, claim 15 recites "said start bit being distinguished from the other biphase bits in that the second bit interval of the biphase start bit is equal to the bit period of the other biphase bits." Furthermore, claims 19 and 22 recite "said biphase start bit being distinguished from the other biphase bits in that the second bit interval of the biphase start bit is equal to the bit period of the other biphase bits."

Upon a careful review of the references, we fail to find that these references teach or or would have suggested a start bit being distinguished from the other biphase bits in that the

second bit interval of the biphase start bit is equal to the bit period of the other biphase bits. We agree that Milheiser teaches in column 6, lines 16-42, that the sync consists of 4 bit periods of preamble information followed by a low level for one and a half bit periods, but we fail to find any suggestion of providing a biphase start bit having a second bit interval that is equal to the bit period of the other biphase bits. Similarly, we fail to find that Setoguchi or Aggers supply any suggestion or teaching to modify Milheiser to provide a biphase start bit having a second bit interval that is equal to the bit period of the other biphase bits.

The Federal Circuit states that "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." ***In re Fritch***, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992), ***citing In re Gordon***, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

We agree that Milheiser teaches a synchronization word having bits of different frequency than the other bits, but the

Appeal No. 95-1901
Application 08/088,397

Examiner has failed to show that the prior art suggested the desirability of the Examiner's proposed modification. Furthermore, we cannot find that Appellants' invention is obvious just because Milheiser could have been modified to provide Appellant's invention. This hindsight view is not evidence that those skilled in the art would have reason to make the modification. We are not inclined to dispense with proof by evidence when the proposition at issue is not supported by a teaching in a prior art reference or shown to be common knowledge of unquestionable demonstration. Our reviewing court requires this evidence in order to establish a *prima facie* case. *In re Knapp-Monarch Co.*, 296 F.2d 230, 232, 132 USPQ 6, 8 (CCPA 1961); *In re Cofer*, 354 F.2d 664, 668, 148 USPQ 268, 271-72 (CCPA 1966). Furthermore, we find that neither Setoguchi, Aggers, Lichtenberger nor Schwendeman supplies this missing teaching. Therefore, we find that the Examiner has failed to establish why one having ordinary skill in the art would have been led to the claimed invention by teachings or suggestions found in the prior art.

Appeal No. 95-1901
Application 08/088,397

We have not sustained the rejection of claims 15 through 23 under 35 U.S.C. § 103. Accordingly, the Examiner's decision is reversed.

REVERSED

KENNETH W. HAIRSTON)	
Administrative Patent Judge)	
)	
)	
)	BOARD OF PATENT
MICHAEL R. FLEMING)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
)	
)	
)	
RICHARD TORCZON)	
Administrative Patent Judge)	

Appeal No. 95-1901
Application 08/088,397

Corporate Patent Counsel
U.S. Philips Corporation
Patent Department
580 White Plains Road
Tarrytown, NY 10591